

Amendments to the Specification

Please replace paragraph [0006], beginning at line 26 on page 2, with the following amended paragraph:

[0006] The present invention can be used with any telecommunications system. In one aspect of the invention, the interface is a radio interface. The layered protocol architecture allows transfer of upper layer Protocol Data Units using a shared medium between a communications units and a telecommunications network device. The layered protocol architecture is operative for coding and transferring Protocol Data Units as a plurality of Radio Link Control data blocks that each carry at least one Logical Link Control Protocol Data Unit (LLC ~~PUD~~PDU) and a data block header that includes a delimiter as a Length Indicator (LI). Any last logical link control Protocol Data Unit of a radio link control data block has no delimiter and when a last Logical Link Control Protocol Data Unit fills the balance of the Radio Link Control data block, the Length Indicator is zero having no data for a first length indicator in any next in sequence radio link control data block.

Please replace paragraph [0012], beginning at line 7 on page 4, with the following amended paragraph:

[0012] ~~Although most of t~~The present invention example embodiments will be described relative to a radio link interface used with a wireless mobile network for mobile transmissions as a non-limiting example, using a stacked architecture, such as a Radio Link Control and Medium Access Control function. It should be understood, however, that the present invention is applicable to any arbitrary protocol stack having contiguous

upper and lower layers. This would include the standard Open Systems Interconnection (OSI) and other common protocol stacks as known to those skilled in the art.

Please replace paragraph [0013], beginning at line 18 on page 4, with the following amended paragraph:

[0013] Protocol Data Units can be delimited in order to be stacked in a lower protocol payload. A length indicator is used such that no data is received in the length indicator under specified conditions. The GSM/GPRS standard is described below as an exemplary use of the present invention, where a Logical Link Control is an upper protocol layer, and a Radio Link Control is a lower protocol layer. Further details of a general protocol description for use in telecommunication protocols is found in the well-known book, Computer Networks, 3rd edition, by Andrew S. Tanenbaum, the disclosure which is hereby incorporated by reference to its entirety.

Please replace paragraph [0014], beginning at line 31 on page 4, with the following amended paragraph:

[0014] The present invention is advantageous relative to a radio interface, in accordance with the GSM standard, and provides a solution where Logical Link Control Protocol Data Units (LLC ~~LDUs~~PDUs) within the Radio Link Control (RLC) data block are delimited for efficiency. The last Logical Link Control Protocol Data Unit would require no delimiter. When the last Logical Link Control Protocol Data Unit fills the balance of the Radio Link Control data block, then the length indicator equals zero, as the first length indicator in the next N sequence radio link control data block. This simplifies

the rule for delimiter functions and saves one octet in case the last (segment of) the Logical Link Control Protocol Data Unit fills exactly within the Radio Link Control data block. This principle can apply to all situations where layered protocols are used and the delimiter payload is required.

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Please replace paragraph [0016], beginning at line 29 on page 5, with the following amended paragraph:

[0016] Further background details can be found in the Technical Report for the Third Generation Partnership Project; Technical Specification Group GSM EDGE Radio Access Network; General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) Interface; Radio Link Control/Medium Access Control (RLC/MAC) Protocol, released in 1999, and developed by the Third Generation Partnership Project (3 GPP™), 650 Route des Lucioles-Sophia Antipolis, Valbonne, France, 2001, the disclosure of which is hereby incorporated by reference in its entirety.

Please replace paragraph [0017], beginning at line 5 on page 6, with the following amended paragraph:

[0017] FIG. 1 illustrates at **10** a telecommunications system ~~and~~ having a plurality of network devices **10a** and communications device **10b**, such as respective base stations and mobile units, forming a wireless network as a non-limiting example. The network devices **10a** (and communications devices **10b**) use a protocol architecture shown at **10c**, including a Radio Resource (RR) sublayer **12** and a Radio Link Control/Medium Access

Control function **14**. The architecture **10c** illustrates management of packet data physical channels with the Radio Link Control and Medium Access Control (RLC/MAC) on a packet data physical channel. The RR sublayer **12** provides services to an MM sublayer **15** and Logical Link Control sublayers **16**, as known to those skilled in the art. The Radio Resource sublayer **12** includes a Radio Resource Management function **18** and interconnects with the Signaling Layer 2, Data Link Layer **20** and the Physical Link Layer **22** via various channels, such as the Broadcast Control Channel (BCCH), Random Access Channel (RACH), access grant channel (AGCH), and other channels as known to those skilled in the art.

Please replace paragraph [0018], beginning at line 26 on page 6, with the following amended paragraph:

[0018] The Radio Link Control/Medium Access Control function **14** is also operative with the Physical Link Layer **22** via various packet channels, such as the packet broadcast control channel (PBCCH), packet associated control channel (PACCH) and other channels as known to those skilled in the art. The Radio Resource sublayer **12** uses the services of the Data Link Layer **20** as the Signaling Layer ~~2~~**20** in the Physical Link Layer **22**, while the packet logic channels PBCCH, PCCCH (including the PPCH, PHECH and PRACH), PACCH and PDTCH are multiplexed onto the packet data physical channels on a per radio block basis, by techniques known to those skilled in the art.

Please replace paragraph [0025], beginning at line 18 on page 9, with the following amended paragraph:

[0025] In the current prior art function, Protocol Data Units for the Logical Link Control are segmented to allow transport of the Protocol Data Units that are larger than the data field of a single RLC data block. If the contents of the LLC PDU do not fill an integer number of RLC data blocks, the next Protocol Data Unit is placed within a final RLC data block of the first LLC PDU, with no padding or spacing between the end of the first LLC PDU and the beginning of the next. If the final LLC PDU in the TBF does not fill an integer number of ~~LLC~~ RLC data blocks, then filler octets are used to fill the remainder of the RLC data blocks.

Please replace paragraph [0034], beginning at line 15 on page 12, with the following amended paragraph:

[0034] A final block indicator (FBI) bit indicates that the downlink RLC data block is the last RLC data block of the downlink TBF. When the bit is zero, the current block is not the last RLC data block in the TBF. When the bit is one, the current block is the last RLC data block in the TBF.

Please replace paragraph [0035], beginning at line 21 on page 12, with the following amended paragraph:

[0035] The extension bit (E) indicate the presence of an optional octet in the RLC data block header. When it is zero, the extension octet follows immediately. When it is

one, no extension octet follows. The extension bit after the ~~PFI~~TFI field is used for extensions of the protocol by allowing optional octets in the RLC data block header

Please insert a new paragraph [0035.01] as follows:

[0035.01] In one example, the data block header includes a more-M bit (M) field to indicate when another logical link control protocol data unit follows the current one within a radio link control data block.

Please replace paragraph [0038], beginning at line 6 on page 13, with the following amended paragraph:

[0038] In accordance with the present invention, the length indicator is used to delimit the LLC PDUs within the RLC data block as described before. The first length indicator can indicate the number of octets of an RLC data field belonging to the first LLC PDU and the second length indicator can indicate the number of octets of the ~~LE~~RLC data field belonging to the second LLC PDU and so on. Only the last segment of any LLC PDU shall be identified with the length indicator. The length indicator shall be placed in the RLC data block with the last segment of the LLC PDU, unless the LLC PDU without the corresponding L1 octet fills the RLC data block precisely. In that case, the length indicator shall be placed as the first length indicator in the next in sequence RLC data block and take the value zero, ~~and~~ having no data.